

REMARKS

Applicants respectfully request reconsideration of the present application in view of the reasons that follow. Claim 47 has been added as a new claim. Claims 1-11, 18 and 36-47 are now pending in this application.

Claim Rejections under 35 U.S.C. § 103

Claims 1 and 8-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0062192 (“Saraga”) in view of U.S. Patent Publication No. 2005/0062192 (“Van”). Claims 2-7, 18 and 36-46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Saraga in view of Van and further in view of U.S. Patent Publication NO. 2002/0129170 (“Moore”). In response, Applicants traverse the rejection for the reasons set forth below.

Applicants rely on MPEP § 2143.03, which requires that all words in a claim must be considered in judging the patentability of that claim against the prior art. Here, the cited references do not identically disclose, teach or suggest all the claim limitations. *See In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Independent claim 1 is directed to “a method for exchanging data between a portable user equipment (MS), a plurality of service stations placed at selected locations and a plurality of mobile service providers” comprising, in addition to other steps:

- a) generating a first request message including designating service data at the portable user equipment (MS);
- b) transmitting the first request message, each of the plurality of service stations being arranged with a short-range communication module which provides a first transmission zone, the portable user equipment including a compatible short-range communication module;
- c) generating a second request message including at least said designating service data at that one of the plurality of service stations whose first transmission zone contains the portable user equipment upon receiving the first request message;

- d) transmitting the second request message, each of the plurality of mobile service providers being arranged with a short-range communication module which provides a second transmission zone, each of the plurality of service stations including a compatible short-range communication module;
- e) receiving the second request message at that one of the plurality of mobile service providers whose second transmission zone contains one of the plurality of service stations at which the second request message was generated; and
- f) stopping such mobile service provider at such service station.

Independent claim 42 recites similar limitations. Without limitation to the claims, Applicants direct the examiner to Figs. 1A-1D and 2A-2B.

Claim 1 relates to a method for exchanging data between portable user equipment, such as a mobile phone, a plurality of service stations placed at selected locations, such as bus stops, and a plurality of mobile service providers, such as buses. Execution of the claimed method results in the stopping of a mobile service provider at one of the service stations in order to perform said service, i.e., pickup a passenger. For example, a user uses his mobile phone (portable equipment) for generating a request for a bus (mobile service provider). When the user is close to one bus stop (service station), the request is spontaneously sent to this bus stop. A subsequent request for a bus is generated at this bus stop. When one of the buses is close to said bus stop, the subsequent request is spontaneously sent to said bus, and the latter stops at said bus stop in order that the user goes on board the bus.

Accordingly, the service providers are necessarily mobile, i.e., they move from one service station to another service station by themselves. A mobile service provider can perform the service at any one of the service stations. Further, the service station that receives the first request message and the mobile service provider that receives the second request message do not have to be identified, in particular by an address. When the user generates the first request message, he does not know which one of the bus stops he is approaching. When the service station transmits the second request, it does not know which one of the buses is approaching it.

In contrast, the cited references do not disclose, teach or suggest each and every element recited in independent claims 1 and 42.

The claimed method differs from the cited references as it involves the use of one specific system architecture. That is, unlike the conventional service providing system, the claimed method is based on a distributed architecture and does not need any communication network. In the claimed method, each base station is self-sufficient for the delivery of the service. One base station does not need further information from any central element.

Specifically, the claimed method is based on a point to point communication, without routing. In the claimed method, a first request message is directly transmitted from the user's mobile phone to the base station and a second request message is directly transmitted from that base station to one bus. Communication occurs only by a direct proximity between the elements that have to communicate together. There is no communication by use of a network layer.

In the claimed method, an opportunity exists for communications to occur (1) when a requesting user is located within the coverage zone of one base station or (2) when one bus is located within the coverage zone of that base station. Most of the time, there is no possibility for a communication to occur because a bus is not located within the coverage of a base station.

Sarga simply does not disclose, teach or suggest all the features of the independent claims. Saraga completely differs from the claimed method. The conventional service providing systems, including the system of Saraga, present a centralized architecture which is based on communication networks. Saraga employs a central internet service provider 24 and the communication between the user mobile telephone 12 and the controller 18 occurs through a cellular telephone network which employs the system controller connected to a public switched telephone network PSTN.

The coverage area of the claimed system consists in a plurality of small coverage areas, each small coverage area surrounding one base station. The small coverage areas do not overlap each other, so that the coverage area of the whole system is not continuous: out of

one small coverage area, the user cannot access the service at all, i.e. he cannot board on a bus nor request for a bus to stop. As the small coverage areas do not overlap each other, said system cannot be considered as global - the service cannot be accessed from anywhere and a user has to stay within the coverage area one base station in order to access the service. This feature is advantageous because a user does not need a bus until that user is near a base station, i.e. a bus shelter. Therefore, the claimed system is more economical, as its coverage zone is limited in regard to the coverage zone of the conventional systems. In contrast, the coverage zone of the system of Sarga corresponds to the coverage zone of the cellular telephone network and is therefore global.

Further, in the claimed system, no geographical localization data has to be transmitted in the request messages. That is, the location of the requesting user does not need to be known either by the bus or by the base station. The bus driver just needs to know if he has to stop at the base station he is nearing.

Unlike the claimed system, the system of Saraga uses location data which is obtained from a GPS system (see paragraph [0001]). That is, in Saraga, a travel related request is transmitted with the mobile telephone position information unlike the claimed method, according to which no such information is needed. Further, thanks to the distributed architecture of the claimed system, short range communications are used for transmitting data both from the requesting user to the base station and from the base station to the bus, without the need for a communication network linking the base station and/or the buses, and for routing.

In addition, in the claimed system, the bus on which the user will board does not need to be identified. Instead, a bus receives the second request message once it is located in the proximity of the base station which received the first request message. In other words, a bus is relevant only by the fact that it is within the coverage zone of said base station. In contrast, in Saraga, the bus that will receive a request message has to be identified, as that request message is emitted from the (central) internet service provider. Finally, in Sarga a user request is calculated based on the information available at the internet service provider. However, in the claimed method there is no need for such a calculation.

Accordingly, the claimed method is very easy to deploy, as each base station, i.e. bus shelter, is not dependent from another base station. In other words, a base station is self sufficient for delivering said service.

Van fails to cure the deficiencies of Saraga. Van relates to several piconets that can be linked together in ad-hoc squatternet to allow flexible configuration of a communication network. Using such a technology involves both the use of routing and the need for an identification of the recipient. As already explained, there is no need for identification of a particular bus in the claimed method as the bus that will be used by the user is the one that is located within coverage zone of the base station.

Further, one skilled in the art would not use the Bluetooth technology in combination with an ad hoc architecture in order to create a communication network: In such a network one node has to permanently discover other nodes through which the message will be routed. As one node needs several seconds for discovering other nodes when operating according to the Bluetooth technology, the system disclosed in Van will exhibit high latency. Moreover it is also not possible to realize a squattenet network with several piconets linked together using the Bluetooth technology as one node is not rapid enough to belong to different piconets at the same time.

Moreover, the combination of Saraga and Van would not arrive at the claimed method for several technical reasons that would be understood by one skilled in the art. In Saraga, the first communication occurs between a mobile telephone and an internet service provider whereas, in Van, the first communication occurs between two mobile elements. Accordingly, it is not possible to implement the networking architecture disclosed in Van in the system of Saraga. In addition, substituting the piconet network of Van for the PSTN network of Saraga would still result in a centralized system. Van fails to explain how the system of Saraga could be modified in order to obtain a distributed system.

In addition, an ad-hoc network cannot be used in conjunction with the system of Saraga because an ad-hoc network needs a very high density of nodes in order to operate and propagate a request through the network. Further, the use of an ad-hoc network, as disclosed

in Van will not be a satisfactory solution as there is no way to know which bus is the nearest from the requested user. Using an ad hoc network as disclosed in Van would therefore imply the use of a localization system in order to identify a particular bus to which the user's request message has to be sent.

Instead, combining the teachings of Van and Saraga would result in a system in which a request message will be propagated from one base station to another base station, and so on, until said request message reaches the bus that has to be addressed, i.e. the bus that has been previously identified and that bus would have been determined based on localization data.

When determining whether a claim is obvious, an examiner must make “a searching comparison of the claimed invention – *including all its limitations* – with the teaching of the prior art.” *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis added). Thus, “obviousness requires a suggestion of all limitations in a claim.” *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)). Here, the cited references fail to disclose each and every limitation in as complete detail as is contained in the independent claims 1 and 42.

Since the Federal Circuit has stated that “obviousness requires a suggestion of all limitations in a claim,” Applicant respectfully submits that the Examiner has not properly set forth a *prima facie* case of obviousness. *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)). (Emphasis added).

Claims 2-11, 18, 36-41 and 43-47 depend from one of independent claims 1 or 42 and should be allowed for the reasons set forth above without regard to further patentable limitations contained therein. Further, Moore fails to cure the deficiencies of Saraga and Van.

If this rejection of the claims is maintained, the examiner is respectfully requested to point out where the above-mentioned features are disclosed in the cited references.

New Claims

Claim 47 has been added to further define the invention. No new matter has been added. Support for new claim 47 can be found at least on pages 6-19 of the application as filed. Claim 47 depends from claim 1 and should be allowed for at least the reasons set forth above without regard to further patentable limitations contained therein.

Conclusion


Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 11/11/04
FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 672-5416
Facsimile: (202) 672-5399

By 
Brian J. McNamara
Registration No. 32,789

W. Keith Robinson
Registration No. 59,396

Attorneys for Applicants